SUNSTAR传感与控制 http://www.sensor-ic.com/ TEL:0755-83376549 FAX:0755-83376182 E-MAIL:szss20@163.com

UV – Photodiode with integrated amplifier

JIC 149 E

characteristics :

- ♦ SiC-photodiode with integrated special filter
- ♦ response approximately (CIE 87)
- ♦ optimized for solar application
- ♦ active area 0,22 mm^2
- ♦ extra sensor pin for external adjustment of gain and bandwidth
- ♦ single supply voltage
- ♦ sensor assembly isolated to ground
- ♦ full hermetically sealed package
- ♦ components are in conformity with RoHS and WEEE

applications :

- ♦ UV-measurement only
- ♦ measurement of erythema efficient UV-part on natural sunlight

absolute maximum ratings :

reverse voltage	20 V
operating temperature range	- 25 °C ... 70 °C
storage temperature range	-40 °C ... 100 °C
welding temperature (3s)	260 °C

technical data :

common test conditions if not otherwise specified: T_A = 25 °C, V_R = 0 V
(typical values in brackets)

parameter	test condition	JIC 149E	unit
transimpedance		1.000	MΩ
dark offset voltage	E = 0 lx	± 3	mV
noise voltage	B = 1 kHz	1	mV_{rms}
max. spectral response	λ = 295 nm	100	mV/nW
risetime		600	µs
bandwidth	- 3 dB	0,5	kHz
saturation voltage	R_L = 2 kΩ	+ 4,95 (+ 4,8)	V
short current		± 50	mA
supply voltage		+ 2,7...+ 5	V
current consumtion		750 (1100)	µA

rev. 2 (03/2009)

DATA SHEET

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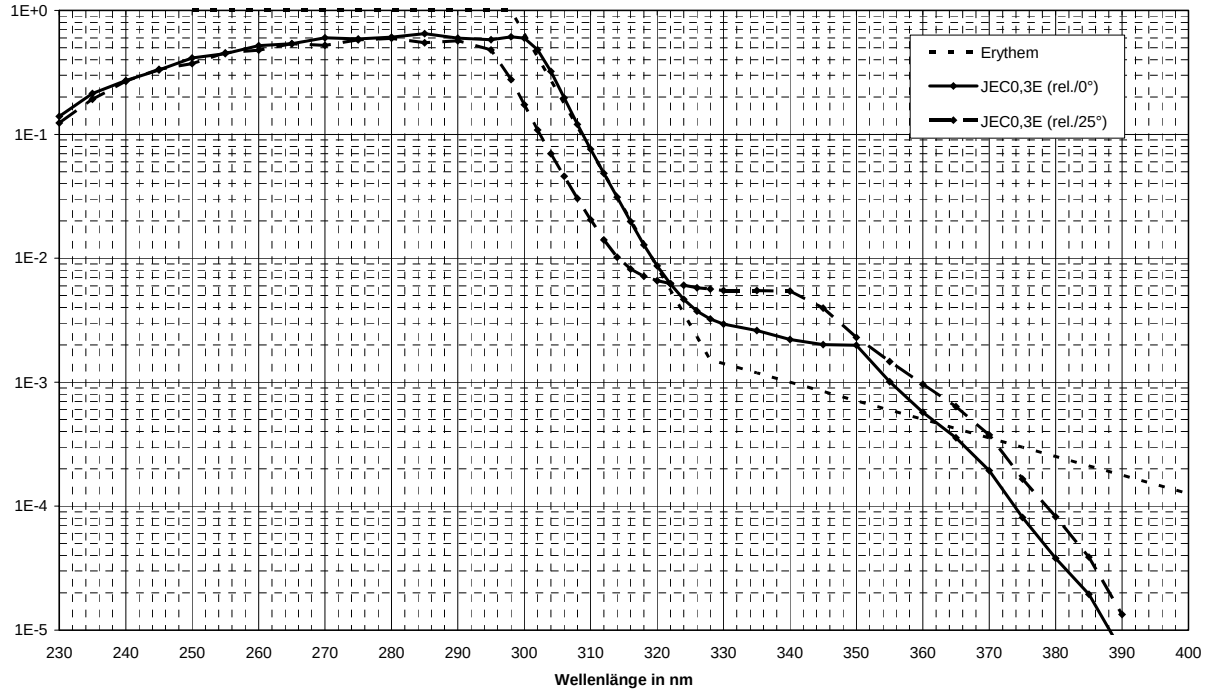
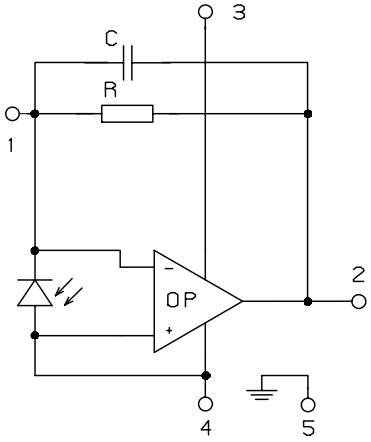
relative spectral response

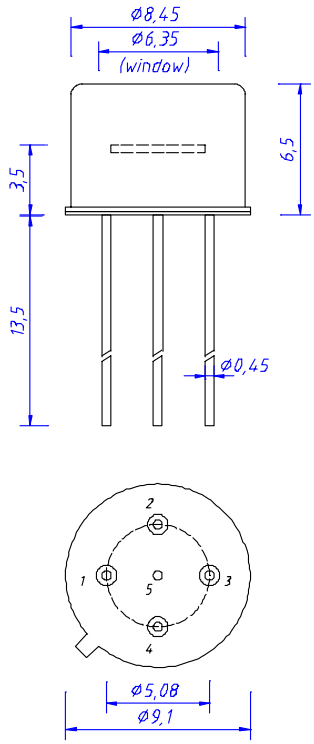


internal circuit



1 R_f
2 Out
3 V_S
4 GND
5 Case

package dimension



applicartion hints:

- If an external resistor for reduction of gain is used, please make sure that lenght of connectors is as short as possible to reduce noise and capacative interference.
- If internally adjusted gain is used only, please cut pin „1“.